

PRINCIPLES AND VALUES

*We are "Stewards of
the Environment"*

*We will provide
"Outstanding
Service"*

We "Respect" people

*We relate on an
"Interdependent"
level*

*Seek first to
understand, then to be
understood*

*We are "Proactive
and Innovative
Thinkers"*

*We make "Decisions
Based on Facts"*

*We believe that
"Continuously
Improving Quality" is
a critical factor in
determining how
successful we are at
providing service to
our customers*

For More Information:
5950 Acorn Street
Riverside, CA 92504
(909) 351-6140



RIVERSIDE REGIONAL WATER QUALITY TREATMENT PLANT

Protecting
Water Quality
24 Hours A Day



RESEARCH ON THE SANTA ANA RIVER

Riverside's involvement in research

continues with the support and voluntary participation in the Santa Ana River Use-Attainability Analysis. These efforts provide the body of scientific knowledge necessary to better protect the unique ecosystem of the Santa Ana River while

continuing to meet customers' needs.

COGENERATION AND ENERGY CONSERVATION

In an especially innovative plan, proposed cogeneration facilities will combine the plant's methane gas (from the digesters) and that of the nearby

Tequesquite Landfill. This plan will solve landfill emissions problems, while providing a cost effective energy source for the Riverside Regional Water Quality Control Plant and eliminate flaring of two useful energy sources. A separate project, the installation of new panel diffusers, will cut the Plant



WATER RECLAMATION

Riverside is looking forward to implementing a water reclamation project to provide water for industrial processes, landscaping and agricultural irrigation needs. This use of reclaimed water will offset the potable water demands and minimize needs for imported water.

NATURAL NITROGEN REMOVAL SYSTEM

An additional wetlands project proposed at Hidden Valley, a wildlife conservation area along the Santa Ana River, demonstrated that nitrogen removal could be achieved through a natural system while enhancing the community wildlife resource.

SOURCE CONTROL

A comprehensive and aggressive pretreatment program has been implemented for source control to improve the wastewater quality and minimize the cost of treatment. This program has been recognized for continued excellence

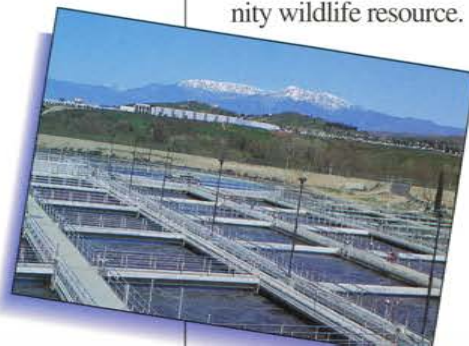
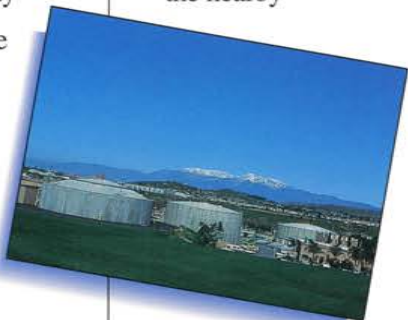


by the Regional Water Quality Control Board and the Environmental Protection Agency.



INNOVATIVE APPROACH

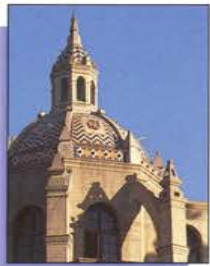
The City of Riverside believes in a proactive and innovative approach in planning future directions, enhancing the environment, and effectively responding to the ever-changing regulatory requirements.



“PEOPLE SERVING PEOPLE”

The City of Riverside Regional Water Quality Control Plant is located south of the Santa Ana River near the intersection of Van Buren Boulevard.

The plant is dedicated to providing sanitary sewer service for about 280,000 residents in the City of Riverside and the Jurupa, Edgemont, and Rubidoux Community Service Districts.



The goal is to protect the sensitive Santa Ana River environment.

The Plant has a capacity to treat up to 40 million gallons per day (MGD) of wastewater. A team of more than 100 people operates and maintains the plant on a 24-hour basis, 365 days a year.

The Plant was constructed in 1946 and has been expanded several

times in the interim period to both increase its capacity and improve the quality of the wastewater discharge. This complex facility performs high levels of treatment through a number of consecutive wastewater treatment processes.

and has been expanded several



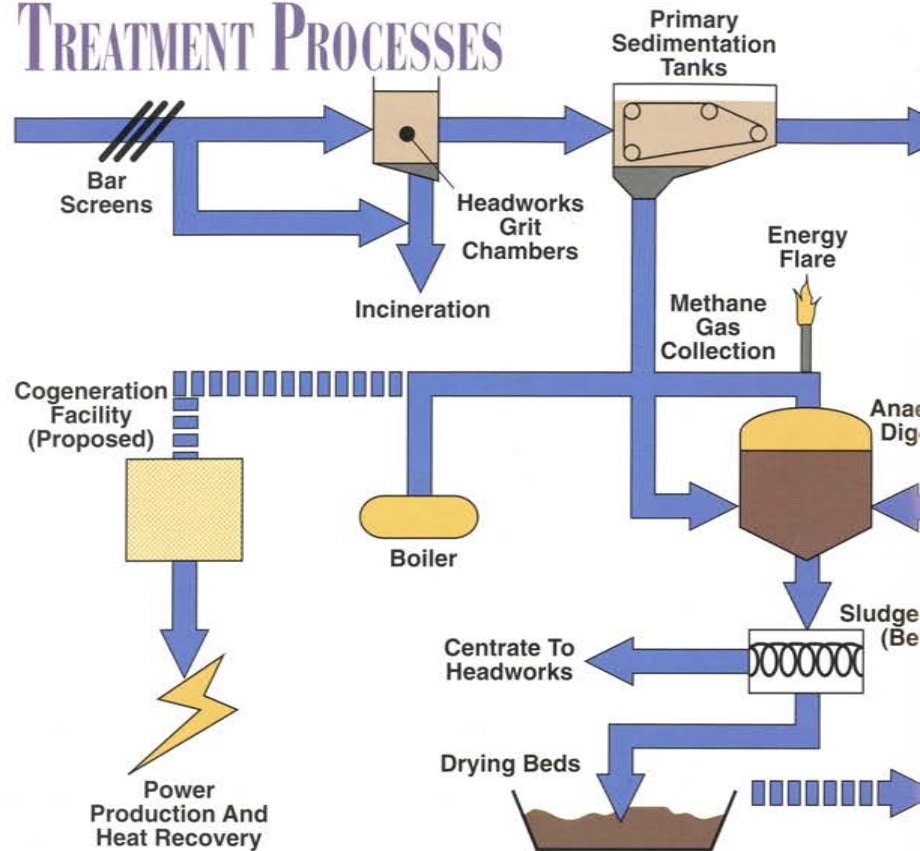
times in the interim period to both increase its capacity and improve the quality of the wastewater discharge. This complex facility performs high levels of treatment through a number of consecutive wastewater treatment processes.



WASTEWATER COLLECTION

Wastewater from Riverside's residential, commercial and industrial contributors is collected through approximately 1,100 miles of sewer pipeline. Five separate influent interceptors feed the entire plant. Growth since 1946 has resulted in the current Plant configuration of two separate wastewater treatment plants, Plant 1 and Plant 2, with common tertiary filtration facilities.

TREATMENT PROCESSES



RIVERSIDE REGIONAL WATER QUALITY TREATMENT PLANT FACTS

PLANT LOCATION:

5950 Acorn Street
Riverside, California

TREATMENT CAPACITY:

Design Capacity - 40 MGD
Average Daily Flow - 29 MGD (1991)
Average Peak Flow - 49 MGD (1991)

EFFLUENT QUALITY:

Nitrified Title 22 Standards

SLUDGE GENERATED:

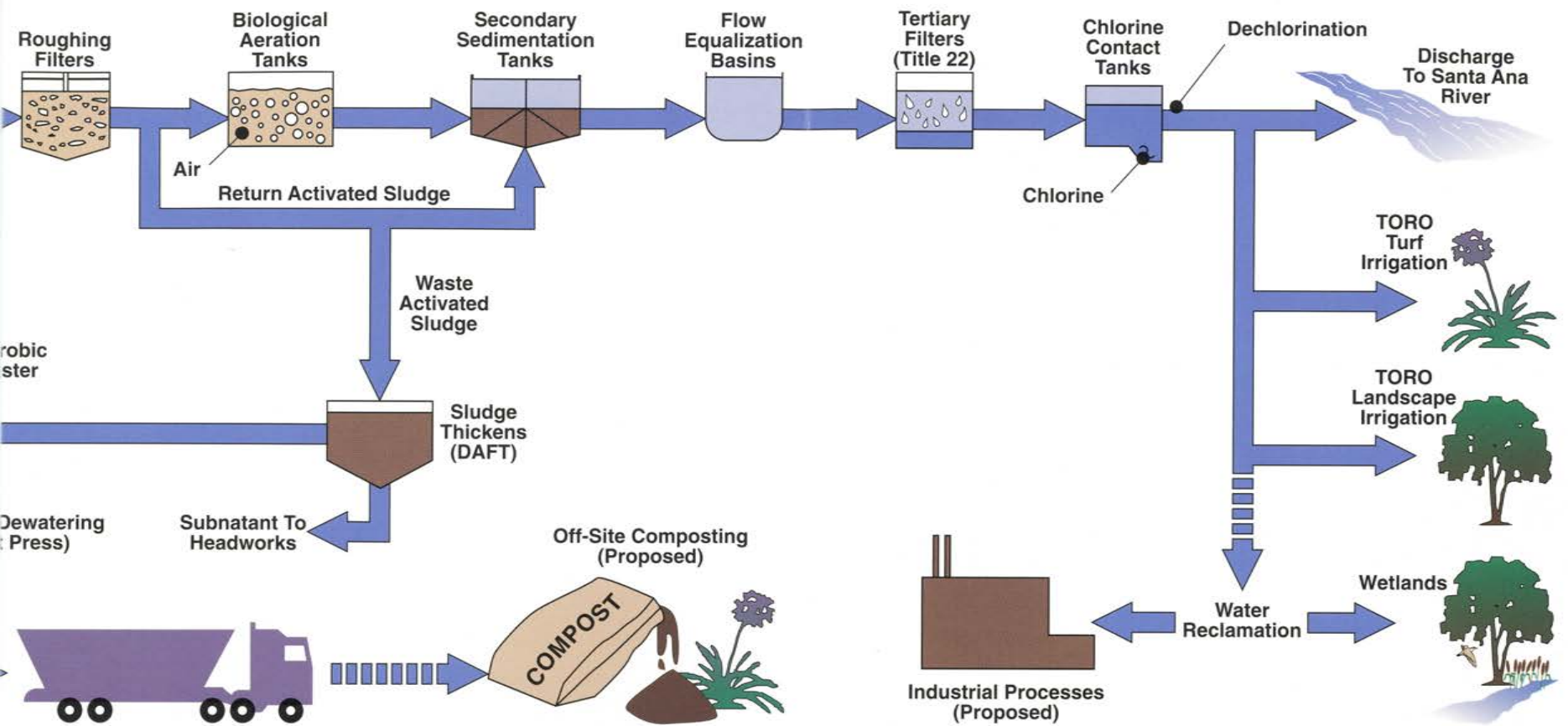
21 dry tons per day (Current)
28 dry tons per day (40 MGD)

PLANT PROCESSES:

Screening, Grit Removal and Incineration
Primary Sedimentation
Biological Treatment (Activated Sludge)
Clarification
Filtration
Chlorination/Dechlorination
Sludge Thickening
Sludge Digestion
Sludge Dewatering and Drying
Sludge Disposal

REMOVAL OF POLLUTANTS:

Biochemical Oxygen Demand (BOD) - 98%
Suspended Solids (SS) - 97%



PRIMARY TREATMENT

The wastewater treatment process involves several steps. The incoming wastewater is first screened to remove large objects that could create problems for the downstream processes. (The collected debris is incinerated at the headworks.) The next step, primary sedimentation, allows the majority of suspended solids to settle in a large tank by means of gravity.

SECONDARY BIOLOGICAL TREATMENT

Air is continuously injected into the wastewater, fostering the growth of microorganisms that consume the organic material removing many suspended pollutants from the wastewater flow. The cultivated microorganisms eventually settle out as sludge in the secondary clarifiers and are subsequently removed.

TERTIARY TREATMENT

The final step is tertiary treatment. Wastewater is passed through a dual media filter for polishing to remove viruses and minute suspended particles. Chlorine is injected to the treated wastewater to disinfect pathogenic bacteria. The final effluent (reclaimed water) is then "dechlorinated" to protect fish in the receiving Santa Ana River.

SLUDGE DISPOSAL

Sludge produced during various treatment steps, is thickened and pumped to the digesters. Organic matter in the sludge is stabilized in the digesters. Following digestion, the digested sludge is dewatered, dried and conveyed for off-site disposal.